

# Intra-aortic Balloon Pump (IABP)

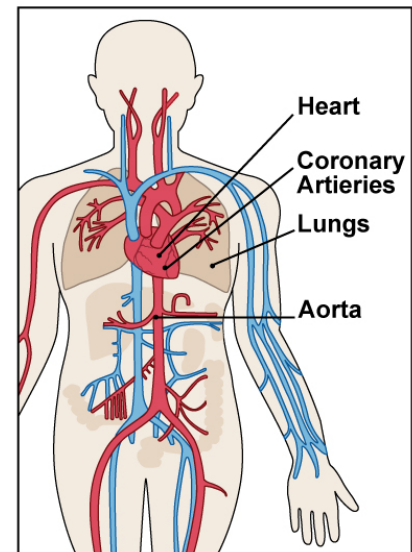


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A guide for patients and family members of the  
TGH Coronary Intensive Care Unit

## How does my heart work?

- Your heart is a muscle that pumps blood, every minute, of every day, to every part of your body
- The blood pumped by your heart carries oxygen and nutrients (food) to all the organs of your body
- On the inside of your heart, there are 4 chambers: 2 on the right side and 2 on the left side:
  - The right side of your heart receives blood that has just delivered nutrients and oxygen to your body. This blood is pumped from your heart to your lungs, where it picks up a fresh supply of oxygen.
  - The blood then returns from the lungs to the left side of your heart. From here it is pumped to your body through the great trunk artery (aorta), then to smaller arteries and all parts of your body.
- Your heart needs its own continuous supply of nutrients. These nutrients are brought to your heart through a group of blood vessels called “coronary arteries”.



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## How can an Intra-aortic balloon pump (IABP) help my heart to work better?

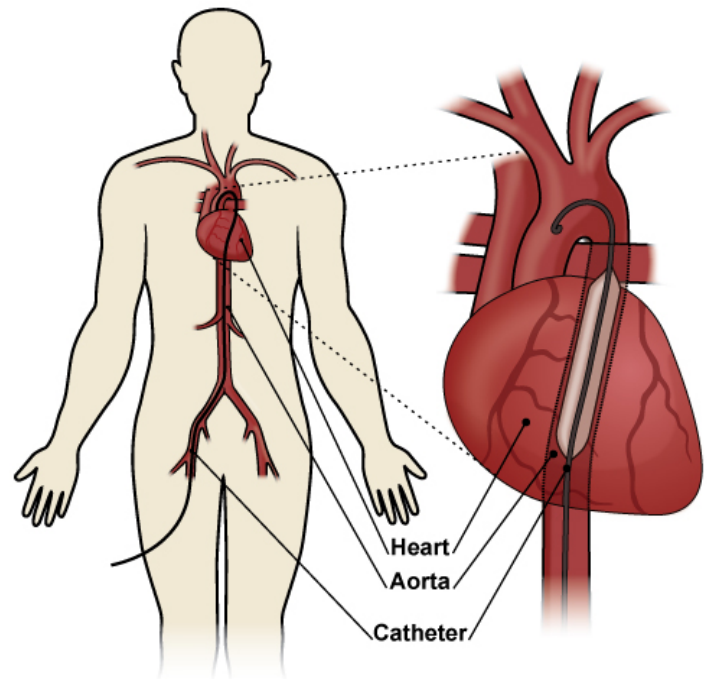
When your heart does not get enough oxygen due to blocked coronary arteries or other medical problems, your heart has to work harder, or may not be able to work well enough to supply your body with all the nutrients it needs. When this happens:

- You may feel short of breath
- You may have pain in your chest
- Your blood pressure may drop

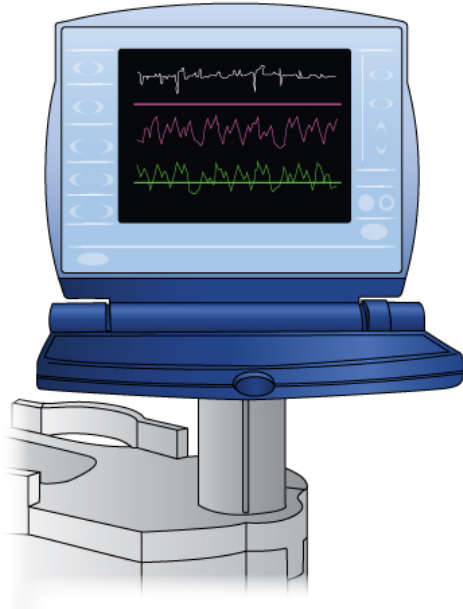
If you are feeling any of these symptoms, an **Intra-aortic balloon pump (IABP)** may be inserted by the Coronary Intensive Care team to assist your heart. An IABP uses a special catheter and machine to help your heart pump. This will help your heart by making it easier for it to supply the body with the nutrients it needs. It is important to know that an IABP is not used to “take over” for your heart, but just to help it carry out its work.

## How is an IABP inserted?

1. An IABP is inserted into the aorta near your heart by a doctor who has been trained to perform this procedure.
2. You will be asked to lie in bed, on your back.
3. The doctor will inject medication that will “freeze” or numb an area in your groin (the place where your leg and hip meet).
4. A catheter or tube will then be inserted through this “frozen” area into the large blood vessel or artery in your groin.
5. An IABP catheter is then inserted through this same artery and is placed into the aorta of your heart.



6. The catheter on the outside of your body will end just above your knee and it will be connected to a special machine (the “balloon pump”).



7. The catheter is then stitched in place while the groin is still “frozen” and a large dressing will be placed over the area.

### **What will happen after the IABP is inserted?**

- An X-ray will be done after the procedure and every day while the IABP is in your heart . This is to make sure that the catheter is in the right spot.
- Your nurse will monitor you very closely, and, as part of your care, will check:
  - The pulses in your leg closest to the IABP
  - The catheter site in your groin
  - The machine that the catheter is attached to
  - Your blood pressure and pulse, every hour
- You will hear different alarms and sounds coming from the machine. Do not be startled; this is a part of the IABP process.
- Every two hours the IABP will stop pumping briefly to reset. Do not worry, your heart will keep on pumping.

- REMEMBER, this machine is only assisting your heart. It has not “taken over” for your heart all together.
- You will need to remain in bed at all times while the catheter is in your groin.
- You will not be allowed to sit up, however, the head of your bed can be raised to a 30 degree angle.
- You will be given medication called a “blood thinner.” This is part of your routine care and will be used to reduce the chance that blood clots will form on the IABP catheter.

### **How can I help with my care while I am using the IABP?**

It is very important that you:.

- Do not get out of bed
- Do not sit up
- Do not bend the leg closest to the IABP catheter (this can cause the IABP to stop working, or cause you to bleed from the groin).

### **It is also important that you:**

- Tell your nurse or doctor right away if you have any chest pain or feeling of heaviness in your chest.
- Tell your nurse or doctor right away about any pain, numbness, or tingling in your leg closest to the IABP catheter.
- Tell your nurse or doctor right away if you are bleeding.
- Try to remain calm while you are using the IABP. If you have any questions about your care, feel free to ask your nurse or doctor.

Adapted from: Balloon Pump Therapy – Datascope / Maquet Cardiovascular at [www.datascope.com/ca/patient\\_info.html](http://www.datascope.com/ca/patient_info.html) 2009